

### Abstract of the disclosure

In order to supply the optical fiber for attenuating optical signal enable the  
5 attenuation amount to become flat in wide wavelength scope, simultaneously adding at least  
two kinds of dopants for attenuating optical signal over the core and the cladding of the  
optical fiber. Then, properly adjusting the kind and the concentration of dopants for  
manufacturing the optical fiber 1 for attenuating optical signal; simultaneously adding the  
dopant enabling the absorption of optical signal to increase with the wavelength become long  
10 and the dopant enabling the absorption of optical signal to decrease with the wavelength  
become long. As the dopant, it is desired to select at least two kinds of transitional metals  
from Co, Ni, Cr, V, Fe, Mn, Tb and Tm. Further, as the doped area, it is desired to dope the 6  
times of the center portion of the core from the center of the core.